

BEST AVAILABLE COPY

SEP-7-2004 09:35P FROM: leimbach 15853819983

TO: 17038729306

P: 12/15

REMARKS

The foregoing amendment does not include the introduction of new matter into the present application for invention. Therefore, the Applicant, respectfully, requests that the above amendment be entered in and that the claims to the present application be, kindly, reconsidered.

The Office Action dated May 7, 2004 has been received and considered by the Applicants. Claims 1-26 are pending in the present application for invention. Claims 1-26 are rejected by the May 7, 2004 Office Action.

The Office Action rejects Claims 1-26 under the provisions of 35 U.S.C. §103(a) as being unpatentable over U.S. Publication No. 2002/0129379 issued to Levinson et al. (hereinafter referred to as Levinson et al.) in view of U.S. Patent No. 5,267,071 issued to Little et al. (hereinafter referred to as Little et al.).

Regarding Claims 1, 10, and 17, the Examiner states that Levinson et al. disclose the subject matter defined by the rejected claims including: a first conductor (106) adapted to carry said informational signals as electrical signals into the apparatus; a RF level sensor operatively coupled to the first conductor (106), adapted to measure the RF power level and to output a control signal according to said RF power level; and a first RF variable gain amplifier (203) adapted to be operatively controlled by the control signal, and adapted to amplifying the electrical signals from the first conductor prior to being communicated through said optical link medium.

The Applicants, respectfully, point out that Levinson et al. disclose a coaxial cable 106 coupled to a variable gain amplifier (203-1) not a RF level sensor as asserted by the Office Action. The Office Action indicates that signal processing logic 204 is equivalent to the RF level sensor defined by the rejected claims. The Applicants, respectfully, point out that the signal processing logic 204 of Levinson et al. is not coupled to the variable gain control and in fact ADC 202 separates these elements.

The Applicants further point out that a Variable Gain Amplifier is not equivalent to an attenuator. A Variable Gain Amplifier will always supply a gain as determined by the variable input which is not equivalent to an attenuator that prevents a signal from attaining certain levels. Accordingly, there are unfound claimed features in the rejected claims. Therefore, this rejection is respectfully traversed.

In an effort to move this case towards allowance, Claim 1 and 10 have been amended to clearly distinguish the subject matter of the present invention from Levinson et al. Claim 1 and 10 have been modified by the foregoing amendment to the claims to recite that features of the RF level sensor having an input node operatively coupled to the first conductor, and the first RF attenuator having a first input coupled to the input node, a second input coupled to receive the control signal. The Applicants, respectfully, submit that this amendment to the claims clearly distinguishes the subject matter recited by the claims to the present invention from the teachings of Levinson et al.

The Examiner admits that Levinson et al. do not teach an RF attenuator adapted to be operatively controlled by the control signal, and adapted to attenuate the electrical signals from the first conductor prior to being communicated through said optical link medium. The Examiner states that Little et al. disclose an apparatus having the RF power detector (214) that sends the control signal to the attenuator (204, 205, 215, 216) to attenuating the electrical signals from the first conductor prior to being communicated through said optical link medium. The Applicants assert that it is not obvious to insert the RF composite power detector 214, and first and second attenuators 215, 216 of Little et al. into the rejected claims as the Examiner contends. The Applicants respectfully draw the Examiner's attention to FIG. 2 of Little et al. wherein attenuators 203 and 206 are earlier in the transmitter circuit than first and second attenuators 215, 216 and controlled by first and second attenuators 215, 216. The Applicants, respectfully, assert that the Examiner is picking and choosing various bits and pieces from various prior art elements using the subject matter defined by the rejected claims as a blueprint; which amounts to hindsight recreation. There is no motivation or suggestion within any of the cited references that would lead a person skilled in the art to believe that attempts in substituting the RF composite power detector 214 and first and second attenuators 215, 216 of Little et al. into the circuit of Levinson et al. The only motivation is provided by the rejected claims themselves.

The Applicants are compelled to respond to comments made by the Examiner regarding optical attenuators being well known for attenuating signal light, stating that it would have been obvious to an artisan at the time the invention was made to include the attenuator of Little et al. in the apparatus of Levinson et al. in order to control or maintain the intensity of the RF signal. The attenuating of the signal defined by the rejected claims defines a specific circuit design that

BEST AVAILABLE COPY

SEP-7-2004 09:36P FROM: leimbach 15853819983

TO: 17038729306

P: 14/15

is not disclosed or suggested by the prior art. The Applicants invite the Examiner to produce prior art that illustrates the control and use of attenuators as defined by the rejected claims. The Applicants, respectfully assert that the attenuators as defined by the rejected claims are not found or suggested by the prior art.

Regarding Claim 17, the Applicants, respectfully, point out while Claim 17 has been included in this rejection that the elements to Claim 17 are not addressed by the Office Action. Claim 17 defines subject matter for RF stabilization systems connected to the transmitter section and to the receiver section; wherein the RF stabilization systems operate to make the effective dynamic range of the apparatus substantially wider than the dynamic range of the included transmission system. There is no disclosure, or suggestion, within the cite references for RF stabilization systems that operate to make the effective dynamic range of the apparatus substantially wider than the dynamic range of the included transmission system. Accordingly, there are unfound claimed features within Claim 17 that are not addressed by this rejection. Therefore, this rejection is respectfully traversed.

The Examiner making the rejection further states with regard to Claims 2 and 20, Levinson et al. further disclose a first RF amplifier (203) adapted to be operatively controlled by the control signal, and adapted to amplify the electrical signals from the first conductor prior to being communicated through said optical link medium. The Applicants, respectfully, assert that the Examiner is reading the Variable Gain Amplifier of Levinson et al. on multiple elements of the rejected claims. The attenuator and amplifiers recited by the rejected claims are separate elements and the Examiner may not read a single element from Levinson et al. on these different elements. Accordingly, there are unfound claimed features in the rejected claims that are not addressed by this rejection. Therefore, this rejection is respectfully traversed.

The Applicants, respectfully, point out that rejected Claim 20 defines subject matter for a RF, wherein an attenuation performed by the RF attenuator is greater when the measured power level is higher than the dynamic range than when the measured power level is within the dynamic range; and a RF amplifier, wherein during operation of the apparatus the magnitude of the amplification performed by the RF amplifier is approximately the same as the magnitude of the attenuation performed by the RF attenuator. These features are not addressed by the Office Action. Accordingly, there are unfound claimed features in the rejected claims that are not addressed by this rejection. Therefore, this rejection is respectfully traversed.

BEST AVAILABLE COPY

SEP-7-2004 09:36P FROM: leimbach 15853819983

TO: 17038729306

P: 15/15

Claim 26 has been amended in a manner similar to Claims 1 and 10 in order to clearly distinguish the subject matter of Claim 26 from the combination made by the Office Action.

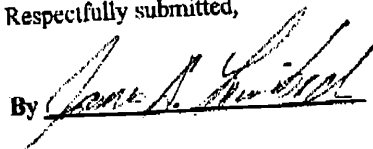
The remaining claims depend from and further narrow and define the above discussed claims; which as previously discussed are believed to be allowable. Therefore, the remaining claims are also believed to be allowable.

Applicant is not aware of any additional patents, publications, or other information not previously submitted to the Patent and Trademark Office which would be required under 37 C.F.R. 1.99.

In view of the foregoing amendment and remarks, the Applicant believes that the present application is in condition for allowance, with such allowance being, respectfully, requested.

Respectfully submitted,

By


James D. Leimbach, Reg. 34,374
Patent Attorney (585) 381-9983

CERTIFICATE OF TRANSMISSION
I hereby certify that this correspondence
is being transmitted on this date via
facsimile transmission to (703) 872-9306 AND addressed to:
COMMISSIONER OF PATENTS
P.O. Box 1450
Alexandria, VA 22313-1450

Date of Transmission: September 7, 2004


(Signature)

Serial No. 09/896,761

11